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# Earth-moving machinery — Sustainability — Terminology, sustainability factors and reporting

*Engins de terrassement — Durabilité — Terminologie, facteurs de durabilité et rapport*

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# Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 10987 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*.

# Introduction

Sustainability has become a global concern for all products, including earth-moving machines. Customers buying the machines are requesting information that can be used to promote sustainability for their work projects. With the increased interest in the subject, many organizations are preparing sustainability guidelines and many manufacturers of earth-moving machinery are beginning to provide general information. This International Standard is the first on sustainability for earth-moving machines: a beginning in the definition of the sustainability information that customers can use for their projects.

Sustainability covers a wide range of areas related to social, environmental and economic considerations for the development, manufacturing, useful life and end-of-life phases for earth-moving machines. This International Standard covers

— general sustainability principles,

— terminology, and

— sustainability factors and formats for summarizing sustainability information.

Further International Standards on sustainability for earth-moving machines are planned to cover other areas, including test methods, performance criteria and means of compliance.

Potential sustainability issues relevant to earth-moving machines include the following:

— greenhouse gas/carbon emissions;

— energy use;

— general processes during design, manufacture, machine life, end-of-life;

— management system for sustainability communication, training, development;

— training for machine use — worksite managers, operators, maintenance;

— social aspect: health, safety, comfort, ergonomics;

— noise and vibration (operator);

— impact on environment — noise, dust, ground disturbance, noise and vibration (spectator);

— manufacturing and remanufacturing;

— dismantling and recycling;

— emissions, after treatment;

— bio fuels and oils;

— hazardous substances.

Other existing International Standards on earth-moving machines, while not dealing with sustainability itself, address many of the areas covered in this International Standard:

— general machine safety, ISO 20474 and the safety standards it references;

— noise, ISO 6393, ISO 6394, ISO 6395, ISO 6396;

— ergonomics, ISO 3411 (operator space), ISO 6682 and 10968 (controls), ISO 11112 (seats), and others;

— recyclability, ISO 16714;

— vibration, ISO 7096 and ISO/TR 25398;

— electromagnetic compatibility, ISO 13766;

— training, ISO 7130 and ISO 8152.

 